

Railroad Commission of Texas

Statewide Rule 13

Midland, Texas
October 2015

RRC Mission Statement



Our mission is to serve Texas by our stewardship of natural resources and the environment, our concern for personal and community safety, and our support of enhanced development and economic vitality for the benefit of Texans.

Session Description



Discussion of the newly revised Statewide Rule 13 regarding casing, cementing, drilling, well control and completion requirements.

Statewide Rule 13



Intent §3.13(a)(1)

- Securely anchor casing
- Isolate and seal off all useable quality water zones
- Isolate all productive zones, potential flow zones and zones with corrosive formation fluids

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Terms of Interest §3.13(a)(2)

Zone of Critical Cement

Protection Depth

Stand under pressure

Productive Zone

Potential Flow Zone

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Surface Casing Requirements §3.13(b)(2)

- Set sufficient casing to isolate all defined usable quality water strata
- Surface casing must be cemented
- Cement must be circulated to surface

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Cement Compressive Strengths §3.13(b)(2)(C)

- Critical Zone cement > 1200 psi in 72 hours
- Filler cement > 250 psi in 24 hours
- API free water separation less than 2 mL water/250 mL
- RRC may require a better cement mixture
- Test slurries according to API RP 10 B
- Sample analysis

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Alternative Surface Casing Requirements §13(b)(2)(G)

- Operator may request authority to set more or less casing than the required protection depth
- Alternative programs require approval by the appropriate District Director
- Fee of \$375.00 per well will be assessed

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 **ONLINE SYSTEM**

Choose an Application

Log In

Log in to access the RRC Online System.

UserID:

Password:

[Forgot Password?](#) OR [Forgot User Id?](#)

The RRC Online System allows authorized entities to electronically file certain forms with the Railroad Commission online or through EDI. Forms processed through this system are ones containing data that has been migrated from the Commission's mainframe to an open system environment. Through the RRC Online System, forms can be filed online over the Internet using a web browser, or data files can be uploaded through the application.

How to Obtain a User ID:

To utilize the Online Filing system, you must have a User ID that is assigned to you by your company's designated Security Administrator. A company or individual may designate a Security Administrator by completing the Security Administrator Designation (SAD) form and mailing it to the RRC. When the SAD form is processed, the Security Administrator will receive a User ID and a temporary initial password. The Security Administrator will be able to log into the RRC Online System using their assigned User ID and create User IDs for users within their company. They will also be able to assign certain electronic filing rights for those accounts, and perform account maintenance activities (such as resetting passwords) when needed.

If you are uncertain whether your company has a security administrator, please email the Commission at rrconline-security@rrc.state.tx.us.

1. [Read](#) the requirements for participating in online filing.
2. [Print](#) the SAD form.
3. Complete and sign the form then mail it to the RRC, following instructions on Page 2 of the form. When the form is processed, the designated security administrator will receive a User ID and temporary password by email.
4. The security administrator will log into the system and assign User IDs and filing rights.

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SWR13EX Homepage



Railroad Commission of Texas

User: Rhonda Rogers

Logout

Menu

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Statewide Rule 13 Exception

Applications In Progress

	Application Number ▾	Last Modified Date ▾	Operator Number ▾	Operator Name ▾	API Number ▾	Lease Name ▾	Drilling Permit Number ▾	GAU Number ▾	Well Number ▾	
 	38	2015-02-19	019530	AMERICAN STATES ENERGY CORP.	345454545	ABVVVVVV		233	2344DD	
 	27	2015-02-19	606102	NEW HOPE PRODUCTION, LLP	389344196	JP & New1111111		47	1234AA	

The *SWR13EX Home* is the main landing page of the Statewide Rule 13 (SWR13EX) site, and provides the ability for you to view, sort, delete, or edit SWR13EX Applications that are in progress. From this page you can also go to an application search, as well as start the creation process for a new application.

When navigating to the *SWR13EX Home*, you see a list of SWR13EX applications that are in progress as well as information about those applications, such as application status and operator information.

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Statewide Rule 13 Exception Data Sheet



RAILROAD COMMISSION OF TEXAS STATEWIDE RULE 13 EXCEPTION APPLICATION/ALTERNATIVE REQUEST¹

Surface Casing: 13(b)(1)(H), Tubing: 13(b)(4)(B), Drilling Fluid: 13(a)(6)(C), or Non-standard Cement 13(b)(1)(D)

1. Operator:	2. P-S No.:	3. Lease Name:	4. Well No.:
5. Street Address:	6. RRC District:	7. Drill Permit No.:	
8. Field Name:	9. County:	10. Well Depth:	TVD MD
11. Well Location: Latitude:	Longitude:	Datum:	
Survey Name:	Abstract No.:	Block:	Section:
12. GAU No.:	(attach letter) Recommendation Type (below):	13. Base of Usable-Quality Water (determined by GAU):	ft.
<input type="checkbox"/> Well <input type="checkbox"/> Lease <input type="checkbox"/> Survey <input type="checkbox"/> Pad <input type="checkbox"/> Radius:	Separation points:		ft.
14. Exception Request: <input type="checkbox"/> Short Surface Csg <input type="checkbox"/> Excess Surface Csg <input type="checkbox"/> Single-string <input type="checkbox"/> Tubing <input type="checkbox"/> Area-wide ²			
15. Alternate Program Request: <input type="checkbox"/> Drilling Fluid Program <input type="checkbox"/> Non-API Cement <input type="checkbox"/> Other:			
16. Reason for this request: <input type="checkbox"/> Economic <input type="checkbox"/> Technical <input type="checkbox"/> Other Please explain: First-time requests for exception to tubing requirements outlined in 13(b)(4)(A) will be granted for a period of 180 days, 13(d)(2)			
17. Is this a proposed injection or disposal well? ³ <input type="checkbox"/> Yes <input type="checkbox"/> No		18. Is this a Minimum Separation well? ⁴ <input type="checkbox"/> Yes <input type="checkbox"/> No	
19. Nearest town: Distance to nearest town: miles. Direction:			
20. Are there any water wells within ¼ mile of this proposed well location? ⁵ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide information requested below Type of water well: Depth: Distance: Direction:			
21. Are there any INJECTION or DISPOSAL wells within ¼ mile of the proposed well location? ⁶ <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list names and depths of all formations permitted for INJECTION OR DISPOSAL within ¼ miles of the well location ⁷ :			
22. Have there been any blowouts within one mile of this well site? ⁸ <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, name operator(s), lease(s), and date(s) blowout(s) occurred:			

IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN 13(b)(1)(H)(iii) OR AS REQUIRED BY THE DISTRICT OFFICE.

23. Proposed Casing and Cementing Program (for additional casing strings or to report Multi-Stage Tool depths use page 3)

	Surface Casing/Single-String	Intermediate Casing	Production Casing
Hole Size (in.), Casing O.D. (in.)			
Grade, Weight (lb/ft)			
Setting Depth (ft)			
Centralizers (no. & placement)			
Cement Type			
# of Sacks and Yield (cu. ft./sk)			
Cement Additives			
24/72-Hr. Comp. Strength (psi)			
Height/TOC (ft.), % Excess			
Free Water Content ⁹ (mL water per 250 mL cement)			
Cement Type			
# of Sacks and Yield (cu. ft./sk)			
Cement Additives			
24/72-Hr. Comp. Strength (psi)			
Height/TOC (ft.), % Excess			
Free Water Content ⁹ (mL water per 250 mL cement)			

PROVISIONS APPLICABLE TO RULE 13 EXCEPTIONS:

1. REQUESTS FOR EXCEPTIONS TO STATEWIDE RULE 13 SUBMITTED AFTER THE WELL HAS BEEN DRILLED OR COMPLETED MAY RESULT IN ENFORCEMENT ACTION AGAINST THE OPERATOR.
2. For area-wide exception requests, please provide a map which clearly defines the area to be exempted. Area-wide approvals are NOT allowed for short surface casing applications. District Offices are not required to grant area-wide exceptions.
3. Caution: If this well is being drilled for injection or disposal purposes, a(n) injection/disposal well permit may be denied unless surface casing is set and cemented through all zones of usable-quality groundwater.
4. A Minimum Separation Well, further defined in section 13(a)(2)(L), is a well in which hydraulic fracturing treatments will be conducted AND for which the vertical distance between BUQW and the top of the formation to be fracture stimulated is less than 1000 ft. or for which the District Director has determined there to be inadequate separation between the BUQW and the top of the formation to be fracture stimulated.
5. Review applications 1-3 (Groundwater Database, Submitted Driller's Report, and Brackish Groundwater Database) at the following link to determine location(s) of water wells within ¼ mile of the proposed well: <http://wvid.twdb.texas.gov/>
6. Refer to the Railroad Commission of Texas Public GIS map viewer to locate injection and disposal wells within ¼ mile of the well(s) mentioned on this application: <http://www.rrc.state.tx.us/about-us/resource-center/research/gis-viewers/>
7. Review W-14 or H-1/H-1A applications at <http://www.rrc.state.tx.us/about-us/resource-center/research/online-research-queries/imagined-records-menu/> to determine permitted injection/disposal zones for wells within ¼ mile of the proposed well. Additionally, refer to Rule 13 Formation Tables provided on the RRC website for information regarding saltwater, H₂S, and other notable formation depths by county: <http://www.rrc.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info/> Statewide Rule 13 may require cementing across these formations.
8. Blowout records can be found at the following URL: <http://www.rrc.state.tx.us/oil-gas/compliance-enforcement/blowouts-and-well-control-problems/>
9. Free water content for tail and critical cement may be provided based on lab data available at the time of submission. If additional lab analyses are required by the District Office, slurries must be tested according to API RP 10B-2, per 13(b)(1)(D)(iii).
10. Notify District Office at least 8 hours prior to setting and cementing casing.
11. The alternative surface casing program authorized by approval of this application is subject to the condition that drilling fluid used while drilling to the base of usable quality groundwater have a salinity of 3000 ppm TDS or less and be conditioned to form a filter cake sufficient to prevent infiltration into the protected water while drilling with fluid having a salinity greater than 3000 ppm TDS below the base of usable quality groundwater to the approved surface casing depth. The use of oil-based and emulsion drilling fluids are prohibited until casing is set and cemented across the base of usable quality groundwater.
12. Note: The following attachments may be requested by the District Office:
 - a. Additional form is required for requests to set surface casing below 3,500' per §13(b)(1)(A)
 - b. Proposed wellbore diagram or cementing proposal
 - c. Lab reports containing compressive strength and free water data for Lead and/or Tail Slurry
 - d. Any other information be required by the District Office.
13. Please note that a copy of the approved application form must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing and Cementing Program on the original application without additional approval from the District Office.

OPERATOR CONTACT INFORMATION			
Signature: X	Name:	Title:	
Date:	Phone:	Fax:	
Email Address (optional):			
RRC District Office Action—FOR RRC USE ONLY.			Ref. No:
TUBING EXCEPTION: <input type="checkbox"/> Approved <input type="checkbox"/> Additional Data Required <input type="checkbox"/> Denied	By:	Date:	
SURFACE CASING EXCEPTION: <input type="checkbox"/> Approved <input type="checkbox"/> Additional Data Required <input type="checkbox"/> Denied	By:	Date:	
DRILLING FLUID PROGRAM: <input type="checkbox"/> Approved <input type="checkbox"/> Additional Data Required <input type="checkbox"/> Denied	By:	Date:	
ALTERNATE CEMENT PROGRAM: <input type="checkbox"/> Approved <input type="checkbox"/> Additional Data Required <input type="checkbox"/> Denied	By:	Date:	
Additional Data Request/D.O. Remarks:			

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Statewide Rule 13 Exception Data Sheet

Proposed Casing and Cementing Program Supplemental Data Sheet

		Conductor Casing		Single-String		String with Multi-Stage Tool at		String with Multi-Stage Tool at		Tapered String	
										Top	Bottom
Hole Size (in.), Casing O.D. (in.)											
Grade, Weight (lb/ft.)											
Setting Depth (ft.)											
Centralizers (no. & placement)											
LEAD/FILLER CEMENT	Cement Type										
	# of Sacks and Yield (cu. ft./sk)										
	Cement Additives										
	24/72-Hr. Comp. Strength (psi)										
	Height/TOC (ft.), % Excess										
	Free Water Content ⁹ (mL water per 250 mL cement)										
TAIL/CRITICAL CEMENT	Cement Type										
	# of Sacks and Yield (cu. ft./sk)										
	Cement Additives										
	24/72-Hr. Comp. Strength (psi)										
	Height/TOC (ft.), % Excess										
	Free Water Content ⁹ (mL water per 250 mL cement)										

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New Requirements in SWR 13

§13(a)(1)

- Compliance with new rule required for all wells **spudded** on or after **January 1, 2014**.

§13(a)(3-5)

- Updates references to wellbore diameter, well casing, centralizers , cementing and casing testing.

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New Requirements in SWR 13

§13(a)(6)(A-B)

- Well Control
- Blow Out Preventer Testing Requirements

§13(a)(6)(C)

- Drilling Fluid Programs

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New Requirements in SWR 13

§13(a)(7)

- Hydraulic Fracturing Treatment Casing Tests
- Minimum Separation Wells

§13(b)(1)(A)

- Surface Casing Requirements

§13(b)(1)(I)

- Mechanical Integrity Test of Surface Casing

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New Requirements in SWR 13

§13(a)(2)(N)

- RRC will establish and maintain list of potential flow zones and corrosive zones by county
- List* is available on website at:
<http://www.rrc.state.tx.us/oil-gas/compliance-enforcement/rule-13-geologic-formation-info/>

**List to be revised as additional information becomes available*

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New Requirements in SWR 13 Formation Tables

- Formation lists subject to change based on new data.
- Listed formation tops for **reference only**.
- Compliance with Rule 13 will be based on formation tops listed on completion report.

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New Requirements in SWR 13 Example Formation Table

All listed
formations
require
isolation if
encountered
in well

Mitchell County			
Formation	Shallow Top	Deep Top	Remarks
Santa Rosa	600	600	possible lost circulation
Yates	600	1,250	overpressured, possible flows
7 Rivers	1,300	1,300	
Tubb	2,000	2,000	
San Andres	1,500	2,400	high flows, H ₂ S, corrosive
Glorieta	2,400	2,700	
Wichita	3,300	3,300	
Clearfork	2,500	3,400	
Coleman Junction	3,100	3,600	possible lost circulation
Wolfcamp	4,800	5,300	
Strawn	3,200	5,850	
Odom	6,800	6,900	
Mississippian	6,300	7,900	
Ellenburger	7,200	8,100	

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New Requirements in SWR 13 Example Formation Table

All listed
formations
require
isolation if
encountered
in well

KLEBERG COUNTY			
Formation	Shallow Top	Deep Top	Remarks
Miocene / Lagarto / Oakville	1400	6200	
	3000	3300	Kingsville Field area H2S
	2600	6200	Injection/Disposal
Catahoula Anahuac	2800	4670	
	3650	3850	Canelo Field area H2S
	2800	4670	Injection/Disposal
Catahoula Frio	2800	14050	
	8550	8750	Canelo Field area H2S
	2800	7500	Injection/Disposal
Vicksburg	6800	8700	
Jackson	11250	11250	

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New Requirements in SWR 13 Notification in Drilling Permits

- RRC query will flag with a permit restrictions any new drill permit application filed on or after **01-01-2014**, as any amended new drill application that does not have a spud date prior to **01-01-2014**:
- The restriction will state that ***“This well must comply with the new Rule 13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations identified for the county in which you are drilling the well.”***
- The approved permit will print out with the information stored in the county table, which is available on the RRC’s Internet website.

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§13(b)(4)(A-B) - Tubing

All flowing oil wells must be equipped with tubing

NEW - Exceptions up to **180 days** may be administratively granted by the director:

- Fee will be required when online system deployed
- Subsequent extensions require a RRC order

Summary



- Statewide Rule 13 – designed to protect UQW and maintain well control
- Construct wells to prevent Sustained Casinghead Pressure (SCP) and maintain casing integrity
- Call the District Office for assistance

Common Questions



- **Q** Most new Eagle Ford wells are not required to be equipped with tubing for the first six months. Will this apply to all new wells?
 - **A** Starting January 1, 2014, an administrative exception to install tubing in a flowing well may be granted by the District Director (no field rule amendment required) for 180 days. If a special field rule exception already has been issued for a particular field, that field rule trumps SWR 13, and compliance is based on that field rule.
- **Q** For purposes of documentation and compliance, who is responsible for providing certification of BOP equipment--the rig owner or operator?
 - **A** The operator to whom the drilling/re-entry permit was issued (or the current well operator, if performing a workover) is responsible for obtaining and providing to the RRC upon request the well control equipment certification.

Common Questions



- **Q** Does the Groundwater Advisory Unit recommendation serve as District Office approval to set surface casing deeper than 3,500'?
- **A** No; separate authorization must be obtained from the District Office to set surface casing deeper than 3,500', even if the protection depth is deeper than 3,500'. Authorization may be given on an area-wide basis (e.g. radial area, survey & abstract, etc.)
- **Q** Does an operator need to obtain an SWR 13 exception from the District Office to set surface casing below 3500 feet?
- **A** No, approval to set surface casing below 3,500' is not an exception. However, the operator must notify and receive approval from the District Office prior to setting surface casing deeper than 3,500'. The District Director must approve the method for protection of UQW and maintaining well control. Exceptions will be required to set surface casing greater than 200' below the BUQW.

Common Questions



- **Q** If a disposal/injection permit is issued for a location within $\frac{1}{4}$ mile of a proposed new well location, is that new permitted disposal/injection zone required to be isolated in the new well?
 - **A** Yes; note that when SWR 9/46 are officially amended, an injection/disposal permit will not be issued until a drilling permit has been approved for the proposed well location. These wells will be identifiable on the RRC Public GIS.

- **Q** How does an operator determine if a disposal/injection well is within $\frac{1}{4}$ mile of a new well proposed location and what is required if a disposal /injection well is identified?
 - **A** Research RRC Public GIS site and isolate disposal/injection interval with cement in new well.

Common Questions

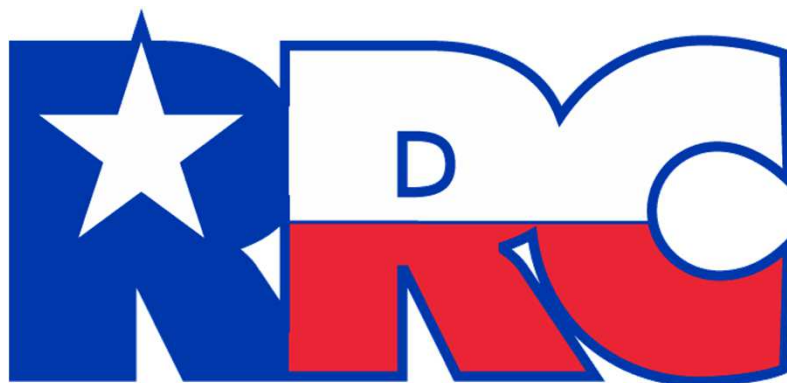


- **Q** Does the new rule change the requirements for obtaining a surface casing exception for wells producing at or above the protection depth or for single-string wells?
 - **A** No; a SWR 13 exception is required for all wells producing at or above the BUQW and single-string wells deeper than 1,000’.
- **Q** Can a person drill with brine drilling mud through uncased protection depths to prevent washout of shallow salt beds?
 - **A** The adoption preamble for SWR 13 states that potassium chloride (KCl) may be added to freshwater drilling mud prior to setting surface casing. Permission to use other brines to drill through UQW protection depths may be granted as part of SWR 13 Surface Casing exception request after showing that the drilling fluid program will provide filter cake protection through the UQW interval, or may be added to field rules through the hearing process.

Common Questions



- **Q** Does it count towards the 360 rotating hours when drilling is taking place in the horizontal section and the drill string is “sliding”.
 - **A** No; hours are only counted when the drill string is actually rotating.



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